

**REMARKS**

This Preliminary Amendment is filed in a Continuation Application filed concurrently herewith under the Continuation Application procedure of 37 CFR § 1.53(b) of prior application, Application No. 09/903,549. By this amendment, Applicant respectfully withdraws claims 1-8 and 16 pursuant to the Examiners imposed restriction requirement in the Office Action dated December 16, 2002 without prejudice or disclaimer. Applicant hereby reserves the right to pursue these claims in a future divisional patent application. By this amendment, Applicant has amended claims 9-13 and added new claims 17-24. Accordingly, claims 9-15 and 17-24 are currently pending in this Application.

The Office Action dated June 18, 2003 has been reviewed and the comments of the U.S. Patent and Trademark Office have been considered. The above amendments to the claims and the following remarks are respectfully submitted to place the application in condition for allowance.

***Rejection under 35 U.S.C. §112, First Paragraph***

Former claim 21 (present claim 20) is rejected under 35 U.S.C. §112 as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession on the claimed invention. Specifically, the Examiner contends that the originally filed application does not teach a face layer of about 1/8<sup>th</sup> of one inch to 1/6<sup>th</sup> of an inch. Applicant respectfully traverses.

Claim 20 has been amended to recite a face layer thickness of about 0.15 inches. Support for this amendment may be found in the specification, for example, in Figure 2 and

Figure 3. Figure 3 details a wood board of the present invention, with a finished flooring thickness of 0.750 inches. Figure 2 details the five individual layers of this wood board: face veneer longitudinally sliced, veneer cross ply, center veneer sheet longitudinally sliced, veneer cross ply and back veneer longitudinally sliced. As indicated in Figure 3, this board of five layers has a finished thickness of 0.750 inches (discussed above). Thus, each layer, including the face layer, has a thickness of about 0.15 inches. The amendment to claim 21 reciting a face layer thickness of about 0.15 inches is therefore fully supported by the specification as originally filed. As such, Applicant respectfully requests withdrawal of this ground of rejection.

***Rejections Under 35 U.S.C. §103(a)***

Newly numbered claims 9-15 and 17-23 (formally numbered 9-15, 17, 20-22 and 24-26) stand rejected under 35 U.S.C. §103(a) as being unpatentable over Tellman (U.S. Patent No. 4,655,869).

With respect to independent claim 9, the Examiner asserts that Tellman teaches a method for manufacturing wood boards that includes sandwiching a core layer having longitudinally pierced slots parallel to the veneer's longitudinal grain structure, between a back veneer and a face veneer, such that the longitudinal grain structure of the veneer face layer adheres perpendicularly with respect to the structure of the core layer. The Examiner further states that Tellman, although teaching bonding of the face, core and back layers, does not suggest any particular bonding order and that this particular deficiency in Tellman is cured by conventional teaching in the art. In addition, the Examiner states that the Tellman piercing process expands the wood layers at the pierced slots. Applicant respectfully disagrees that the presently claimed invention is unpatentable over Tellman and traverses as follows.

Applicant has amended claim 9 to recite a method of manufacturing wood boards utilizing veneer sheets with longitudinally pierced slots wherein said pierced slots do not result in appreciable expansion of the resulting wood board. This amendment clearly differentiates Applicant's claimed invention from that described in Tellman and thus makes the obviousness rejection moot.

Tellman aims to reduce the cost of structural sheathing plywood by using expanded veneer as the core layer in a sandwich structure with the result that somewhat weakened plywood veneer is obtained. Removing the amount of wood in the inner layer lowers these costs. Tellman teaches "[a]n effective way to remove wood from the innerplies is to expand the veneer in the perpendicular-to-the grain direction." (Col. 2, lines 46-48). In regards to the core inner layer, Tellman teaches "there must be expansion of the veneer in a direction perpendicular to the grain without also reducing its thickness appreciably." (Col. 2, lines 66-68) (emphasis added).

The Tellman disclosure further describes his procedure in which green wood veneer sheets are sliced using nip rollers or other blades to produce cuts of approximately 1/16<sup>th</sup> of an inch in width. These cuts function to permit expansion of the veneer. The wood board is then crushed with rollers to make sure the cuts do not close and to achieve permanent lateral expansion. (Col. 3, lines 34-50). The disclosure states "It is also important that a small amount of wood be crushed at each point where the veneer is wedged apart. This crushed wood acts as a permanent wedge to keep the veneer in the expanded condition after the blade is withdrawn." (Col. 3, lines 7-11). Tellman contemplates "The veneer sheet (18) may be run through this nip up to four times on each side to achieve expansions of 30% to 40% after drying compared with an unexpanded sheet." (Col. 3, lines 41-44). Thus, even a single pass is designed to generate a size increase of about 8-10%. Moreover, Tellman is concerned to not weaken the strength of the

wood appreciably in the direction of the grain or perpendicular to the grain. Thus, he appears to teach away from a process designed to weaken the wood. *See, generally*, Tellman at col. 5.

In contrast, Applicant's invention discloses that the veneer sheets of the core inner layer are pierced with holes or slots about 0.375 inches by 0.75 inches and spaced about 0.375 inches axially and 0.75 inches transversely. These piercing dimensions are larger than those described in Tellman and thus result in holes or slots that provide channels for which glue can travel from one side of the sheet to the other. The slots also provide a vertical surface for the glue to give additional strength and stress relief of the grain veneer sheet. Applicant's specification states "Such piercing has been found to relieve shrinkage stress in veneer sheets, retard further shrinkage or swelling due to changes in ambient conditions, and to reduce movement during the subsequent gluing, machining, and finishing process; with the final product being structurally stable while maintaining strength and the necessary flexibility for its intended end use." (Page 7, line 23 through page 8, line 3). Thus, Applicant's process uses the piercing action to remove some of the strength of the inner layers so that they will be more manageable during the gluing, machining and finishing process, with the unexpected benefit that the final product is more structurally stable than the prior art wood flooring. Applicant's specification does not disclose a piercing process that appreciably expands the wood layer in a direction perpendicular to the grain, nor does it contemplate expansion of the inner layer up to 40%.

Applicant's present invention also differs from Tellman in that the pierced veneer sheets are only sent through the roller once. Additionally, the rollers apply only enough pressure to reduce the elastic properties of the sheet. See Torrey Declaration at ¶10, a copy of which is attached. Applicant's invention never contemplates applying pressure great enough to cause crushing of the wood at each point where the veneer is wedged apart. The wood veneer created

is not designed to experience the permanent expansion at the pierced slots as taught in Tellman. This results in greater dimensional stability (very little shrinkage or warpage) that gives the unexpected property of having better installation parameters than solid hardwood flooring.

The Tellman reference does not teach or suggest all of the limitations of newly amended claim 9 or the resulting dependent claims. In particular, Tellman does not teach a process of manufacturing wood boards comprising wood sheets with longitudinally pierced slots, wherein the pierced slots do not cause appreciable expansion of the resulting wood board. The present rejection fails to show that there would have been a reasonable expectation of success by one of skill in the art to use the teachings of Tellman to make an engineered wood flooring product that has dimensional stability. In fact, Tellman teaches away from Applicant's claimed invention because the specification requires permanent expansion of the wood veneer in a direction perpendicular to the grain through crushing of the wood at each point where the wood is pierced. As a result, claim 9 is unobvious over Tellman, and Applicant respectfully requests that the Examiner withdraw this ground for rejection.

Since claims 10-13 and newly added claims 14-24 now pending in this application depend directly or indirectly from claim 9, Applicant also respectfully requests that the obviousness rejections attached to those claims as a result of Tellman be withdrawn and the application sent to issue.

**CONCLUSION**

**EXCEPT** for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this Application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-2228, referencing matter number 021247.0102PTC1. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3). If the Examiner believes a telephone interview or personal interview would advance the prosecution of this case, she is invited to contact Scott Chambers at (703) 744-8085.

Respectfully submitted,



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